When is (Surgical or Endoscopic) Intervention Needed

Philip Katz MD MACG, AGAF
Professor of Medicine
Director GI function Laboratories
Weill Cornell Medicine

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Disclosure

- Consultant Phathom Pharma

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Definition of GERD

- GERD is the condition in which the reflux of gastric contents into the esophagus results in symptoms and/or complications. GERD is objectively defined by the presence of characteristic mucosal injury seen at endoscopy and/or abnormal esophageal acid exposure demonstrated on a reflux monitoring study.

Katz P, etal 2021,AJG in press

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Goals of Therapy

- Relieve symptoms (improve quality of life)
- Prevent complications

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Patient Profile

- 64 yr old presents with progressive dysphagia/solid and liquids
- Long standing “GERD”, managed without objective diagnosis with PPI AM and H2 HS with moderate relief with this regimen
- Symptoms predominantly regurgitation, heartburn progressing to dysphagia becoming dominant.
- No weight loss
- No major medical problem
- Scheduled for EGD with endoflip/Bravo off PPI for 2 weeks

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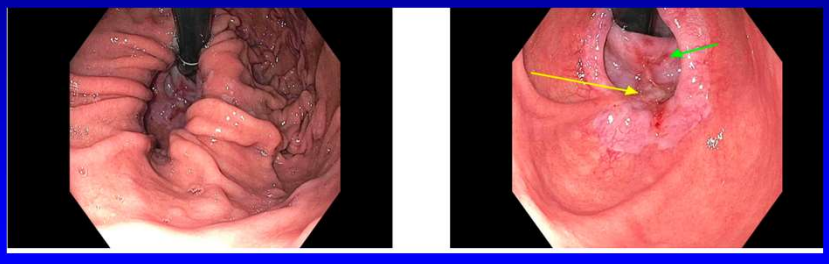
EGD findings



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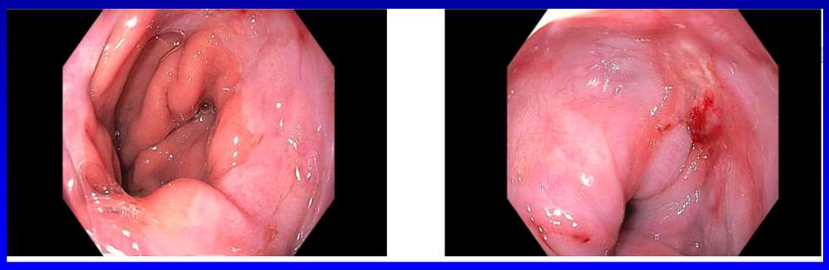
EGD findings



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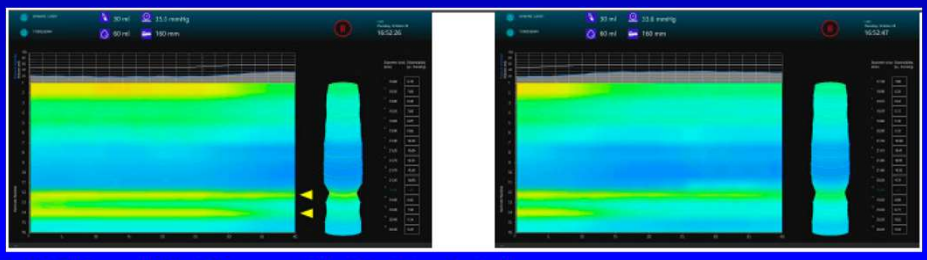
Endoflip

DI: 3.5 at 60/ Diameter 16

4.5 at 70/ Diameter 18



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GERD phenotypes

GERD syndrome	Distinguishing features
Non-erosive reflux disease (NERD)	• Heterogeneous population ➢ When defined by pH-metry, very similar to low grade esophagitis, but when defined by symptoms, overlaps with GERD hypersensitivity and functional heartburn
Reflux hypersensitivity	• Esophageal hypersensitivity ➢ Conceptually differentiated by pH-metry or pH impedance findings, but in practice, these entities can be clinically indistinguishable
Functional heartburn	
Low grade erosive esophagitis (Los Angeles grade A or B)	• Poor EGJ barrier function with excess acid reflux and typical reflux symptoms (heartburn and regurgitation) ➢ LA A esophagitis found in about 6% of asymptomatic controls making it a non-specific finding
High grade erosive esophagitis, (LA grade C or D)	• Prolonged esophageal acid clearance with grossly abnormal EGJ function and prominent recumbent (nocturnal) reflux ➢ Usually associated with hiatus hernia and impaired esophageal motility
Barrett's esophagus	• Greatest risk for esophageal adenocarcinoma ➢ Endoscopic spectrum from intestinal metaplasia at the EGJ to short segment Barrett's to long segment Barrett's (>3 cm) ➢ Biological spectrum from non-dysplastic metaplasia to low grade dysplasia to high grade dysplasia ➢ Indicative of both acid and bile reflux

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One Approach

- Only consider "intervention" when medicine is not successful
- Consider intervention when there are side effects of medicine (or allergy)
- Intervene for fear of medical complications
- Intervene in selected anatomic situations for fear of complication
- Intervene in selected phenotypes (symptoms) because surgery is superior to medicine
- Intervene to prevent cancer

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Another approach is to discuss surgery with all patients who require chronic maintanence therapy with PPI

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What will the new AJG guidelines say

We recommend antireflux surgery performed by an experienced surgeon as an option for long-term treatment of patients with objective evidence of GERD, especially those who have severe reflux esophagitis (LA grades C or D), large hiatal hernias, and/or persistent, troublesome GERD symptoms are likely to benefit most from surgery.	Moderate	Strong

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Another is to consider intervention in Refractory GERD: AKA PPI is not controlling symptoms

- Scenario One: GERD has been objectively documented by the presence of erosive esophagitis and/or abnormal esophageal acid exposure on a prolonged pH monitoring study BUT unpleasant symptoms remain despite a PPI
- Scenario Two: A patient with symptoms suspected due to GERD has been treated empirically BUT symptoms have not been relieved to their satisfaction

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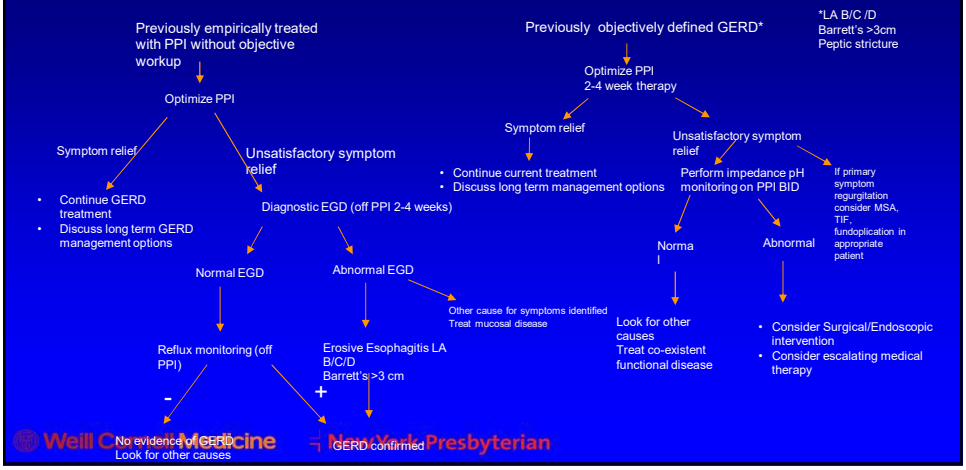
Management algorithm of symptoms suspected due to GERD



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Why Proton Pump Inhibitors May Not Control Gastric Acidity

- Dose timing related to food not optimal
- Dose insufficient
- Genetic variability in PPI metabolism

Less likely

- Hpylori negative (May need higher dose)
- Hypersecretion (rare)

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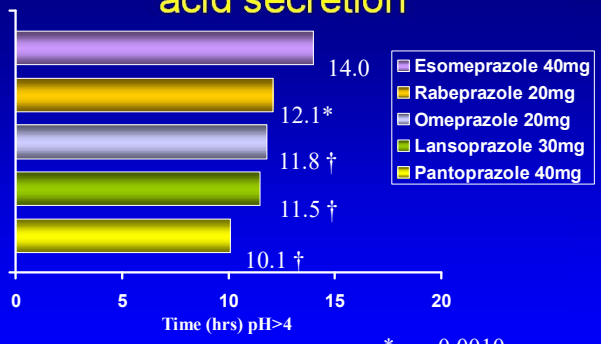
Once daily PPI does not abolish acid secretion



* p = 0.0010 vs. esomeprazole
† p ≤ 0.0001 vs. esomeprazole

Miner PB, Katz PO et al. *Am J Gastro.* 2003; 98(12):2616-2620

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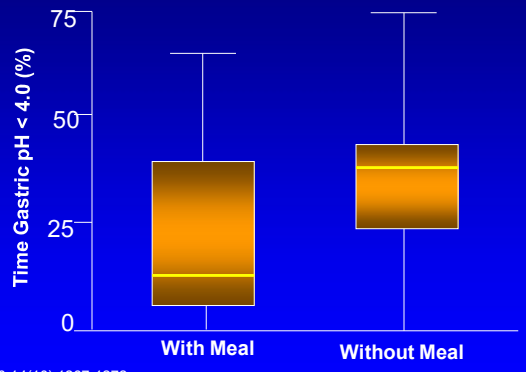
Optimizing PPI: Dose timing relative to a meal makes a difference in acid control



Hatlebakk JG. Katz P, etal
Aliment Pharmacol & Ther 2000:14(10);1267-1272.

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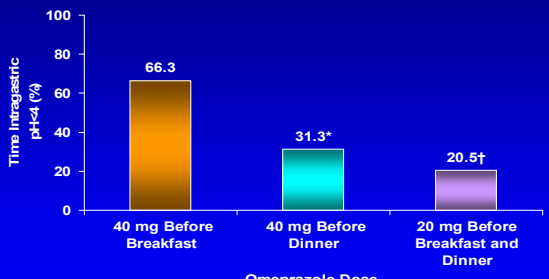
Time of Day Taking PPI may make a difference



N = 18.
*P = 0.01.
†P<0.02.

Hatlebakk et al. Aliment Pharmacol Ther. 1998;12:1235-1240.

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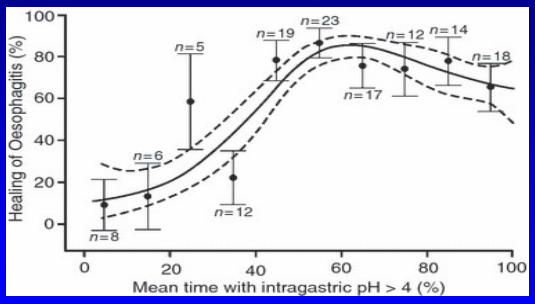
Healing and Acid Control: Is there a plateau?



Katz P et al, APT 2007

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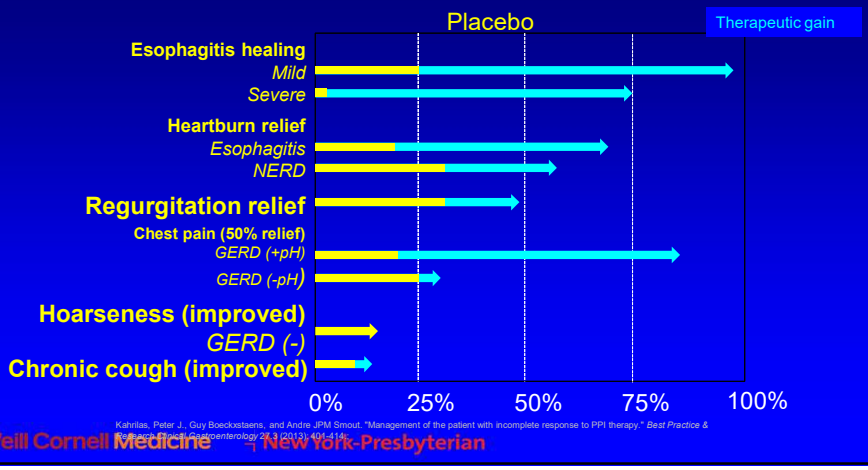
PPIs are better for some things and not others



Kahrilas, Peter J., Guy Boeckxstaens, and Andre JPM Smout. "Management of the patient with incomplete response to PPI therapy." *Best Practice & Research Clinical Gastroenterology* 21.2 (2013): 401-416.

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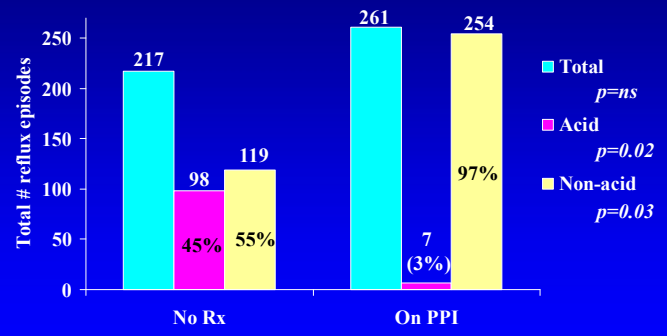
PPIs may not reduce post prandial reflux episodes



Vela M, etal Gastro 2001

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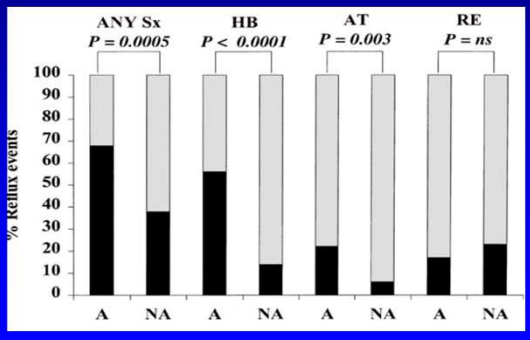
Non Acid Reflux Episodes Cause Symptoms



Vela etal 2001

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Optimal Omeprazole Dosing and Symptom Control: A Randomized Controlled Trial (OSCAR Trial)

- 64 patients with continued heartburn on BID omeprazole not taking optimally by history
- Randomized to optimal dosing or continued as they were doing
- 8 weeks significant decrease in frequency, severity of symptoms on optimal regimen

- Conclusion: Optimizing PPI dosing relative to meals improves outcomes

Digestive Diseases and Sciences
January 2019, pp 158–166

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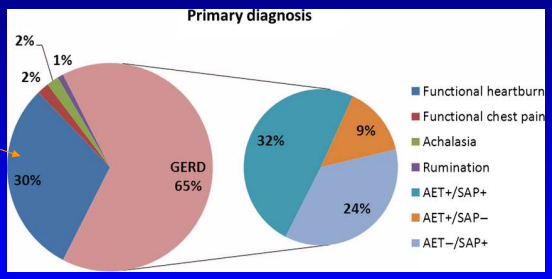
Patients with refractory reflux symptoms often do not have GERD

Many Just Simply Do Not Have GERD

Functional HB



Herregods T etal
Neurogastro Motil. 2015

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Consider Intervention in Any Patient with Proven GERD Who:

- Does not want to take medication
- Who is not relieved with medication
- Has side effects from medication
- Who has complicated disease and requires better reflux control than medication can offer

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THE END

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